

LXXVII.—*New Species of Geometridæ.*

By LOUIS B. PROUT, F.E.S.

Subfam. *ÆNOCHROMINÆ.**Hypographa bathrosema*, sp. n.

♂. 40 mm.—Face without horny prominence (? damaged). Palpus with third joint rather long; blackish, somewhat mixed with white. Antennal shaft ferruginous brown; pectinations somewhat more ochreous, long, decreasing; last 10 or 12 segments merely serrate-dentate. Thorax blackish, much mixed with white except posteriorly. Abdomen grey irrorated with fuscous. Fore wing with costa nearly straight, subconcave; termen strongly and rather regularly dentate; venation normal, stalk of  $\text{SC}^{4-5}$  separate from  $\text{R}^1$ ,  $\text{R}^2$  from well below middle of DC; blackish fuscous, somewhat irrorated with white, especially in proximal half of median area; a white patch at base, slightly sprinkled with fuscous and containing longitudinal black marks from base, namely, a dash 2 mm. in length anteriorly to cell, a rather longer one posteriorly to cell, and an irregularly triangular blotch 3 mm. in length occupying the space between submedian fold and  $\text{SM}^2$ ; antemedian line from one-third costa to nearly one-half inner margin, whitish, lunulate-dentate, the teeth pointing basewards on M and  $\text{SM}^2$ ; accompanied distally by a black line which thickens into a broad shade anteriorly; postmedian line deeply sinuate basewards from  $\text{R}^1$  to  $\text{R}^3$  and below  $\text{M}^2$ ; preceded by a black line; cell-spot elongate, crescentic, blackish, not distinct; subterminal line white, zigzag, somewhat interrupted; terminal area pale (rubbed on both wings); terminal line black. Hind wing with termen crenulate; base whitish as far as end of cell, thence light purplish fuscous marked with black towards inner margin; a weak, diffuse, dark dentate line at proximal margin of the dark area, absorbing the ill-defined, crescentic cell-mark; a postmedian dark line following the same course as that of fore wing; faint indications of a pale subterminal, most noticeable towards tornus; a fine black terminal line; fringe pale proximally, darker distally and broadly dark-marked at the ends of the veins. Under surface of fore wing light purplish fuscous, paler at inner margin, costal edge as far as the postmedian line blackish, marked with white, median and postmedian lines present; of hind wing whitish, coarsely irrorated with purplish and blackish fuscous, median

dark shade present, thickened towards costa, postmedian darker than above and followed by a diffuse dark cloud, which is least distinct towards the costa.

Kelmscott, West Australia, 27th May, 1909 (*G. F. Berthoud*). Type in coll. G. Lyell, Gisborne.

Nearly related to *H. incongrua*, Walk. List Lep. Ins. x. p. 353, but differing, apart from the wing-markings, in less prominent frons and somewhat longer third joint of palpus.

*Sarcinodes subvirgata*, sp. n.

♀. 60–63 mm.—Face grey, pinkish above. Palpus grey, sprinkled with pinkish, almost wholly pinkish beneath. Head and body concolorous with wings. Build very robust, as in *subcarnea*. Fore wing pink, slightly mixed with grey, costal edge narrowly whitish, irregularly marked with grey; antemedian line very faint, somewhat darker from costa to SC, where it is sharply angled, subsequently marked with a fuscous dot on M and on SM; median line more distinct, lunulate-dentate, angled near costa; postmedian firm, dark olive-fuscous or blackish, running almost straight from apex to inner margin at three-fifths; the intermediate area mostly filled in with red-brown, gradually darkening and becoming more mixed with olive as it approaches the submedian; faint traces of a deeply lunulate-dentate subterminal pale line, distally to which the ground-colour is again somewhat red-brown shaded; extreme termen and fringe dark red-brown. Hind wing with the median line becoming antemedian, the postmedian crossing the wing at scarcely beyond middle; coloration much as in fore wing, but with stronger hoary dusting distally to postmedian, especially on the teeth of the subterminal. Underside of fore wing very variegated, pink and olive-grey, with sparse blackish scales, costal area in part paler, a thick, dark olive-grey subcostal line nearly to apex; an oblique cell-mark and distinct median line, the latter just beyond cell, touching posterior end of cell-mark and followed by some dark shades; a postmedian series of blackish vein-dots from costa at four-fifths, curved at first, but mostly running just proximally to the line of upperside; distal area somewhat darkened and slightly mixed with ochreous. Underside of hind wing with the dark shading increased, absorbing nearly all the wing, except the base, apex, and a narrow central band containing the series of black vein-dots; this central band shaded with pale ochreous, at least in the posterior half; a rather strong wash of deep ochreous near termen between R<sup>1</sup> and R<sup>3</sup>.

Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3500 feet, November 1908 to January 1909. Type in coll. L. B. Prout. A second ♀, Fak-Fak, 1700 feet, January to February 1908, slightly more reddish above and slightly more ochreous beneath, but quite similar, also in coll. L. B. Prout. The type has a large dark olive spot behind postmedian on  $R^3$  of each wing, of which there is no trace in the cotype.

*Leptoctenopsis uxorculea*, sp. n.

♀. 28 mm.—Very closely related to *melusina*, Prout, Gen. Ins. fasc. 104, p. 82, of which it may possibly be a form, though the fore wing appears to be slightly more squared at tornus; ground-colour paler, the antemedian line somewhat more curved, the postmedian paler, shaded proximally with pale yellowish and on fore wing sharply dentate outwards in the cellules on either side of  $SC^5$ .

Caracas, Venezuela. Type in coll. L. B. Prout.

*Corium hyperphyes*, sp. n.

♂. 43 mm.—Face black above (partly rubbed). Palpus whitish, ends of first and second joints black on outer side. Thorax and abdomen white, with some black spots dorsally. Wings white, subhyaline, with slight bluish reflection. Fore wing with apex acute, produced; costa to  $SC$  irrorated with fuscous; antemedian line from costa at well beyond one-third to termen at somewhat beyond one-third, curved anteriorly, consisting only of large irregular blackish spots on  $SC$ ,  $M$ , and  $SM^2$ , and weaker ones on the folds; discal spot black; postmedian line from costa at four-fifths to inner margin at somewhat before two-thirds, consisting of black spots on  $SC^5$ ,  $R^{1-3}$ , and  $M^1$  (the last almost a dash), and black dashes, considerably further from termen, on  $M^2$ ,  $SM^{1-2}$ , and inner margin; a faint, strongly lunulate-dentate subterminal line near distal margin, the teeth on the veins directed distad; a slender dark terminal line, and a series of large round black terminal spots between the veins; fringe white. Hind wing similar, without antemedian line. Under-side with discal and terminal spots, the lines obsolete.

Mlanji Mountain, 6000–7000 feet, 1st May, 1910 (*S. A. Neave*). Type in coll. Brit. Mus.

Much larger than any previously known species of *Corium* or *Derambila*, and further distinct in the formation of the subterminal line.

In the fore wing  $SC^1$  arises separate, not from the base of stalk of  $SC^{3-5}$ ; after anastomosing very strongly with C it does not touch  $SC^{3-4}$ . The hind leg is long and slender.

Subfam. *ACIDALIINÆ*.

*Neosterrha cryptereuthus*, sp. n.

♂. 27 mm.—Face reddish, mixed with fuscous above; palpus reddish; head otherwise concolorous with wings. Fore wing slightly narrower ( termen more oblique) than in *thetis*, Warr. Nov. Zool. vii. p. 158; similarly coloured and marked, the black cell-spot very large and almost round—much larger than in *thetis*. Hind wing not angled (scarcely even bent) at  $R^3$ ; marked as in *thetis*, the two white cell-spots large. Fore wing beneath almost uniform bright red, only the extreme inner marginal edge concolorous with hind wing; postmedian line marked in deeper red. Hind wing beneath pale greenish ochreous, terminal and subterminal lines red.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*). Type in coll. L. B. Prout.

Warren mentions what is evidently this species as a variety of *thetis*, but does not allude to the difference of shape, nor to the large cell-spot. It seems to be a quite distinct species.

*Acidalia manifesta*, sp. n.

♂ ♀. 20–24 mm.—Size, colour, and aspect of *corrivalaria*, Kretschmer, but with the markings grey, or at most slightly ochreous grey, never clear ochreous; median shade of fore wing more oblique, reaching inner margin just before one-half, that of hind wing nearer base, well proximal to cell-spot, never crossing or markedly bending round it; postmedian line of both wings finer, not or at most very feebly denticulate; a diffuse grey shade distally to postmedian sometimes prominent; both cell-spots always strikingly large and distinct. Underside more weakly marked than upper (in *corrivalaria* the reverse is the case). Hind tarsus in male not much shorter than tibia—about three-fourths (in *corrivalaria* considerably less than one-half).

Tien-tsin, type (♂, 7th September, 1904) in coll. L. B. Prout, together with a series of both sexes, August–September 1904, June 1905 and ? 1906, all kindly presented by Mr. Percy Richards.

Variable in the strength of the markings, but always conspicuous in the bold, prominent discal spots.

*Hamalia subfuscicosta*, sp. n.

♂. 21 mm.—Face and occiput blackish fuscous; vertex whitish. Palpus slender, fuscous, pale beneath. Antennal shaft fuscous, at base whitish, cilia long. Fore and middle legs fuscous above. Wings glossy. Fore wing with termen strongly oblique; very light bone-colour; basal one-third of costa dark fuscous, costal area further with some fuscous speckling; lines very fine, brown; antemedian and median almost obsolete, the latter starting from a large dark spot at costa; postmedian from costa at nearly three-fourths, sub-terminal midway between this and termen, both starting from dark costal spots, strongly sinuous, the postmedian out-angled on  $R^1$ , incurved between  $R^1$  and  $R^3$ ; no terminal line; fringe concolorous. Hind wing rather narrow, whitish bone-colour;  $SC^2$  and  $R^1$  stalked for one-half their length; all the four lines present, not very strong, irregularly lunulate-dentate, postmedian deeply incurved between  $R^1$  and  $R^3$ . Underside of fore wing more suffused with fuscous, especially costally and terminally, the median and postmedian lines diffuse; inner margin of fore wing and whole of hind wing whitish, unmarked.

San Antonio, W. Colombia, 5800 feet, December 1907 (M. G. Palmer). Type in coll. L. B. Prout.

Subfam. *LARENTIINÆ*.*Cambogia diversicosta*, sp. n.

♂. 22 mm.—Face red-brown; vertex grey. Antennal shaft grey, darker-spotted; pectinations normal. Thorax red-brown, patagia and base and tip of tegulæ ochreous grey. Fore wing red-brown; a broad ochreous-grey, reddish-marked costal streak, reaching to  $SC$  and to  $R^1$ , then running off to a point at apex; lines very fine, dark, indistinct except at costa; antemedian from costa at one-fifth, oblique outwards, acutely angled on  $SC$ , thence vertical to inner margin; followed by a diffuse pale shade, this again by a diffuse dark line; postmedian starting obliquely from costa at one-half, strongly excurved in anterior half of wing; a faint pale line following a similar course, 1 or 2 mm. nearer termen; cell-spot large, black; termen with indistinct dark spots between the veins; fringe red-brown, with pale yellowish line at base. Hind wing with termen waved, slightly toothed at  $R^3$ ; cell-spot small, but very distinct; followed by first line, which is angled at separation of  $M^1$  from  $R^3$ , and followed

shortly by a weaker, more diffuse line; postmedian much as in fore wing. Underside rather paler, with indistinct lines; cell-spots distinct, terminal spots more conspicuous than above.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*). Type in coll. L. B. Prout.

Nearly related to *C. pallidicosta*, Warr. Nov. Zool. xiv. p. 241, of which it may possibly prove a form; smaller, duller, the costa less conspicuously pale, the fringe apparently not pale yellow at the extremity (but slightly damaged), the hind wing less strongly toothed at  $R^3$ .

*Trichoclystis rhombipennis*, sp. n.

♂. 20 mm.—Head and palpus dull ochreous, the latter marked with fuscous along upper side. Antenna pale ochreous, spotted above with fuscous. Body pale ochreous, mixed with fuscous; abdomen densely tufted with long hair beneath. Fore wing shiny (almost greasy-looking) ochreous grey, suffused along costa and termen with fuscous; basal patch small, fuscous, widening costally; median band fuscous, of uniform width, smooth-margined, its proximal edge from costa at almost one-third, very gently incurved, distal edge from costa at two-thirds, gently outcurved in costal half, here somewhat darkened; obscure dark sub-terminal shading costally and between the radials; terminal line dark, interrupted at vein-ends; fringe grey, apparently dark-spotted at vein-ends (defective). Hind wing short, termen truncate from C to  $R^3$ , here bluntly right-angled, thence nearly straight (somewhat sinuate) to tornus; pale grey, more tinged with ochreous in distal and inner marginal part; faint indications of median, postmedian, and terminal dark bands starting from inner margin. Underside greyish, weakly marked, fore wing with faint curved postmedian line and faintly dark terminal shade, separated by a vague pale band.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*). Type in coll. L. B. Prout.

Apparently referable to the genus *Trichoclystis* as defined by Warren (Nov. Zool. xi. p. 535), all the generic characters which he gives being well developed; the agreement with *Tephroclystia* (*Eupithecia*) in venation is, however, confined to the fore wing (and probably the female hind wing—at present unknown); in the curious rhomboid male hind wing the cell is strongly produced *anteriorly* (the reverse of the form so common in Larentiid genera),  $SC^2$  arises from the

anterior (upper) angle of this projecting arm,  $R^{1-2}$  from a point at its posterior (lower) angle. The large hair-tuft on underside of fore wing is ochreous grey, not raven-black as in *peregrina*.

*Eupithecia albisecta*, sp. n.

♂. 24 mm.—Face whitish ochreous, vertex white; palpus long, dark above. Patagia and tegulæ marked with white. Abdomen ochreous, the second segment with a dark brown-black belt. Fore wing dull chocolate-brown; costa nearly to apex broadly cream-coloured, the extreme edge slightly fuscous tinged; median vein broadly whitish; an oblique double whitish line from middle of inner margin, angled about  $R^1$  and retracted to costal streak; traces (especially at costa) of an interrupted white subterminal line; fringe nearly concolorous with wing. Hind wing rather paler, with the double whitish line straight and antemedian. Underside paler, with weak transverse lines (the postmedian diffuse) and dark cell-spot, that on fore wing the larger.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*). Type in Coll. L. B. Prout.

Except for the totally different hind wing above, this species might be taken for a form of *E. pallidicosta*, Warr. Nov. Zool. xi. p. 533, which is certainly variable.

Subfam. GEOMETRINÆ.

*Leuciris mysteriotis*, sp. n.

♂. 26 mm.—Apparently indistinguishable from large, unmarked examples of *L. fimbriaria*, Cram., except in the antennal ciliation, which is very much shorter, the longer (outer) series scarcely twice as long as width of shaft.

Porto Rico. Type in coll. L. B. Prout.

In erecting *L. beneciliata* (Ann. & Mag. Nat. Hist. (8) vi. p. 437) I unfortunately compared its male antennal ciliation with that of the present species instead of with true *fimbriaria*. I find the last-named agrees with *beneciliata*, so that it remains just possible (though not probable) that *beneciliata* is merely a local race of Cramer's species, distinguished by the much more highly developed transverse markings and narrower terminal spots (the latter distinction not noted in the original description). In any case, *mysteriotis* is a structurally valid species.

*Nephodia (Nipteria) admirationis*, sp. n.

♂ ♀. 45–49 mm.—Head and thorax grey, marked with fuscous. Palpus blackish. Abdomen grey, marked with fuscous at the segmental incisions. Fore wing shining grey, costal edge (more broadly at base) blackish, costal area, apical one-third (or more) of wing and terminal area to tornus irrorated with fuscous, especially at apex, where the effect of a fuscous cloud is produced; cell-spot moderately large, fuscous; a faint fuscous line discernible at about 5–6 mm. from termen; fringe blotched with fuscous at vein-ends. Hind wing wholly irrorated and mottled with fuscous, a rather large dark cell-spot and a dark dash on cell-fold, nearly as in *exclamationis*, Warr.; no line; fringe as in fore wing. Underside similarly but very much more darkly marked; hind wing with a blurred, curved postmedian line discernible.

San Antonio, W. Colombia, 5800 feet, November 1907 (*M. G. Palmer*). Type (♀) in Coll. L. B. Prout. Two females from same locality, December 1907, in coll. L. B. Prout. One male from same locality, 24th August, 1908 (*Fassl*), kindly presented by M. Dognin, who informs me that he has three or four other males agreeing with this, two of them rather larger, better-marked, with the postmedian line more distinct.

Closely related to *N. exclamationis*, Warr. Nov. Zool. xi. p. 547, but differs in having the wings somewhat narrower, darker, weaker-marked above (especially the postmedian line); underside with the same distinctions, in particular the hind wing uniformly dark, yet with the “exclamation” or “admiration” mark well expressed, its — generally longer. It would seem to be the insect described by Warren (Nov. Zool. xvi. p. 100) as *N. obeliscata* ♀, but it is quite distinct from the type (♂) and is now known to occur in both sexes.

*Nephodia (Nipteria) agrotans*, sp. n.

♂. 35–39 mm.—Face and palpus ochreous brown; vertex pale ochreous grey. Antennæ grey, the shaft tinged with ochreous. Thorax and abdomen pale ochreous grey, in places whiter. Fore wing dirty white, costa to SC, apex rather broadly and termen except at tornus (narrowing off to a point posteriorly) smoke-grey; veins conspicuously darkened; a dark cell-mark; a dark streak from costa to R<sup>3</sup>, 4 or 5 mm. distant from termen. Hind wing almost uniform whitish grey, with a small indistinct cell-spot. Underside



of fore wing similar to upper; of hind wing smoky, with darker cell-spot and curved postmedian line at 4 or 5 mm. from termen.

La Oroya, Rio Inambari, S.E. Peru, 3100 feet, January 1906. Type in coll. L. B. Prout. A second example from Pozuzo, E. Peru, also in coll. L. B. Prout.

The strong veining of the upper surface recalls *N. pieridia*, Warr. Nov. Zool. xii. p. 351, but the present species has the termen more regular in shape and differs in the underside, &c.

*Meticulodes triplilunata*, sp. n.

♂. 50 mm.—Related to *beatricaria*, Oberth., nearly like it in costal half of both wings above, the principal differences being in inner marginal half, as follows:—*Fore wing*: base wanting the ferruginous-brown patch and its ochreous boundary-line; median area darker and much more uniform than in *beatricaria*, its proximal edge obliquely curved, reaching inner margin nearer base, its distal edge bounded by three violet-whitish lunules, their convexity directed distad; the succeeding shade delicate grey-violet, entirely without red admixture; black terminal shade narrow and only reaching to  $M^1$ . *Hind wing*: tornal markings black, not red, narrower than in *beatricaria* and bounded proximally by a thick white line, which bends rather sharply away from termen after  $M^2$ , and is very faintly traceable across the wing almost to costa. On the under surface the bright ferruginous shades of *beatricaria* are entirely wanting, the fore wing being shaded with reddish grey at apex (without the three white spots of *beatricaria*), the hind wing broadly with rich ochreous brown from apex to near tornus; a small black tornal patch on hind wing, bounded proximally by an ill-defined whitish patch.

Naranjito, Rio Dagua, W. Colombia, 3900 feet, June 1908. Type in coll. L. B. Prout. I have also seen a specimen from Costa Rica in Coll. W. Schaus.

*Lobopalta antonia*, sp. n.

♂. 46–50 mm.—Head and body concolorous with wings; palpus pale at extreme tip. Legs conspicuously marked with white patches, especially at end of tibiæ; spurs banded, blackish and white. Fore wing shaped as in *latrata*, Guen., except that the anterior half of termen is less absolutely smooth; pinkish brown, irrorated with olive-brown and with scattered black dots; antemedian line nearly as in *latrata*, but more sharply angled on  $SM^2$ , mixed of whitish

and olive, edged distally with blackish at costa and inner margin, very faintly with grey between; cell-spot blackish, ringed with pale olive; a curved median dark shade from costa beyond this, as in *latrata*; postmedian line starting from a pale spot at costa beyond four-fifths, sharply angled at  $SC^5$ , then rather oblique inwards, nearly straight, gently excurved in submedian area, olive, weak, but emphasized by whitish dots on veins and by proximal dark shading at costa and inner margin; fringe mostly redder, but olive and pale-tipped in the sinus between  $M^1$  and  $M^2$ . Hind wing similarly coloured, the brown tint predominating proximally, the pinkish distally; costa as far as  $SC^2$  and termen from apex to across  $R^1$  mostly white; a faint median and a moderately distinct postmedian line formed nearly as in *latrata*, but the latter darkened on the veins and accentuated by whitish vein-dots, slightly incurved in submedian area; some obscure subterminal clouding; fringe mostly reddish. Underside very like that of a strongly marked *angulosa*, Cram. (*caninata*, Guen.), the postmedian olive line rather better defined and more regular, the median shade of hind wing rather slighter, fringe without dark dots.

San Antonio, W. Colombia, 5800 feet, December 1907 (*M. G. Palmer*). Type and cotype in coll. L. B. Prout. M. Dognin possesses an example from Loja, Ecuador, which Mr. Druce many years ago, by mistake, determined for him as *succedens*, Walk. (a pure synonym of *latrata*). The hind wing beneath is particularly unlike that of *latrata*.

LXXVIII.—*Paraceratherium bugtiense*, a new Genus of Rhinocerotidæ from the Bugti Hills of Baluchistan.—*Preliminary Notice*. By C. FORSTER-COOPER, M.A., University Demonstrator in Comparative Morphology, Cambridge.

[Plate X.]

THE type species of this new genus is found in the Upper Oligocene deposits of the Bugti Hills in Baluchistan. The material is somewhat fragmentary, though enough has been obtained to warrant the formation of a new genus for its reception, the generic characters relied upon being the very unusual position and shape of the two lower incisors, which